INTERNATIONAL SEARCH REPORT

PCT/EP2004/010875

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H02J7/00 H02M3/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

 $\begin{array}{ll} \mbox{Minimum documentation searched (classification system followed by classification symbols)} \\ \mbox{IPC 7} & \mbox{H02J} & \mbox{H02M} \end{array}$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

Category Citation of document, with indi	cation, where appropriate, of the relevant passages	
X US 6 002 220 A AL) 14 December abstract column 4 figure 1	(NISHIMURA KATSUNORI ET er 1999 (1999-12-14)	1
Y EP 0 695 017 A 31 January 199 the whole docu	96 (1996-01-31)	1–10
	SUNLEIGH ELECTRICAL November 1991 (1991-11-13) 9 - line 11	1-10

Y Further documents are listed in the continuation of box C.	χ Patent family members are listed in annex.
Special categories of cited documents: A* document defining the general state of the art which is not considered to be of particular relevance E* earlier document but published on or after the international filing date L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O* document referring to an oral disclosure, use, exhibition or other means P* document published prior to the international filing date but later than the priority date claimed	 "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
_Date of the actual completion of the International search 6 December 2004	Date of malling of the international search report 13/12/2004
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Authorized officer Marannino, E.

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C.(Continua	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
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